

# NATURAL RESOURCES AND CONSERVATION



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## STATE OF MONTANA

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### FINAL - Finding of No Significant Impact ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b>	Flathead County Evergreen Water and Sewer Water Well Relocation and Monitoring Well Project
<b>Proposed Implementation Date:</b>	September 2022
<b>Proponent:</b>	Flathead County
<b>Location:</b>	48.240163, -114.294483; Tract 1AAA, in the NW¼ of the NE¼ of Section 32, T29N, R21W
<b>County:</b>	Flathead

#### I. TYPE AND PURPOSE OF ACTION

The Flathead County Evergreen Water and Sewer District proposes to replace two of their current drinking water supply wells. The Flathead County Well Relocation and Monitoring Project proposes to use an ARPA Water and Sewer Infrastructure Minimum Allocation Grant to create a safe and reliable drinking water supply by replacing Well #1 and monitoring Well #2. The Project objectives are to purchase move-to property and drill a new well to replace Well #1, decommission Well #1, and install a monitor well in proximity to Well #2 and implement enhanced testing protocols.

The District's current system consists of two drinking water wells located at the main office at 130 Nicholson Drive. The wells were installed in 1967 and 1975, respectively. There are two Superfund sites, including the KRY site and the Pacific Recycling site in close proximity to these wells that pose a serious risk to the safety of the District's water supply. The State has issued an enforcement order for the KRY site and conducts monitoring of the ground water contamination. Unfortunately, the Pacific Recycling site is not characterized or modeled and is not on DEQ's priority list for such assessments, even though it is less than 500 feet from the District's critical drinking water wells.

While the routine water quality tests conducted by the District do not show any cancerous, toxic, or illegal constituents in the output of those two wells, we recently discovered that one of the two wells, Well #1, is not as deep as was assumed and was not properly grouted to protect against surface water influence.

The District's well house with the non-grouted well is in an area of high groundwater and occasional flooding during early summer when the area rivers experience high run-off from snow melt and rain events. Failed septic tanks, livestock, and the BNSF railway are immediately adjacent to Well #1, which present additional risks to the water supply. A new Kalispell Rail Park has recently been developed near the wells and the industrial and rail uses in the area have increased significantly. The newer well, Well #2, is deeper and grouted, but is also vulnerable to groundwater contamination although there have been no positive tests for any constituents of concern. One of the issues is that the significant pumping from the Well #2, particularly during the summer, may affect the direction of any groundwater plume coming from the Pacific Recycling site, even though the groundwater

appears to be flowing in the opposite direction from the wells based on modelling and monitor well tests at the nearby KRY site. DEQ has evaluated pumping effects on the KRY plume, but there has been no assessment of the potential impacts of Well #2 pumping on any other plume that may have been or is being created by past and present activities in direct proximity to Well #2.

The project location is on recently acquired land purchased by the Evergreen Water and Sewer District and is located at approximately 48.240163, -114.294483; Tract 1AAA, in the NW $\frac{1}{4}$  of the NE $\frac{1}{4}$  of Section 32, T29N, R21W, Flathead County, Montana.

The Project proposes to begin drilling of the new wells to begin the testing phase of the project June 2022 and end September 2022. The project goals and outcomes will address climate change and resiliency by improving and better monitoring drinking water supply and quality.

DNRC would approve the grant to provide funding for the Flathead County Evergreen Water and Sewer Water Well Relocation and Monitoring Well Project.

## II. PROJECT DEVELOPMENT

### **1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:**

*Provide a brief chronology of the scoping and ongoing involvement for this project. List number of individuals contacted, number of responses received, and newspapers in which notices were placed and for how long. Briefly summarize issues received from the public.*

The Evergreen Water and Sewer District has presented the proposed project at their monthly meetings. In addition, the District obtained a letter of support from the landowner who sold the tract of land for the proposed well sources to the District.

DNRC will post a draft of this Environmental Assessment for public comment for 14 days on the DNRC – Public Notices webpage. In addition, the MEPA Coordinator will provide a letter of notice for public comment to the applicant and send notice to applicable/affected entities.

For any comments submitted by the public, the MEPA Coordinator will review and work with the Grant Manager and applicant to adequately address those comments. UPDATED: No public comments submitted on draft EA - 10/12/2022

### **2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:**

*Examples: cost-share agreement with U.S. Forest Service, 124 Permit, 3A Authorization, Air Quality Major Open Burning Permit.*

The project proponent will need to complete a DNRC Water Rights – Change Authorization application once the testing is complete and before the District begins using the wells as a public water supply source. There may be associated mitigation requirements with the water rights approval.

This project proposes to drill and install two new drinking water supply wells, which falls under the jurisdiction of the Montana Department of Environmental Quality's Public Water System Supervision Program (PWSS). Thus, the proponent is required to have their engineering plans and specifications approved by the DEQ PWS personnel before the project can proceed per DEQ Circular-1 – Standards for Water Works, Chapter 3, Part 3.2.7 – Groundwater Development – Well Pumps, discharge piping

and appurtenances. There may be DEQ-specific mitigation requirements associated with these well installations.

The project may overlap with the Montana Department of Transportation 'West Reserve Drive Corridor Planning Study' (comments submitted by Montana DOT, July 2022). Where the potential widening of West Reserve Drive from a two-lane with a center lane to a four-lane with center turn lane would require a right-of-way acquisition on one or both sides of the highway by DOT, inevitably conflicting with the 100' well isolation zone. In addition, the applicant will need to complete a Driveway Approach Application and Permit from the local MDT Kalispell Office.

The proposed project is near (< one mile) designated Freshwater Emergent Wetlands (U.S. Fish and Wildlife Service National Wetland Inventory) and may need to acquire the necessary U.S. Army Corps of Engineers (USACE) Nationwide Section 404 and/or Section 10 Permit if they expect any impact to these nearby wetlands associated with the implementation of this project.

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### **3. ALTERNATIVE DEVELOPMENT:**

*Describe alternatives considered and, if applicable, provide brief description of how the alternatives were developed. List alternatives that were considered but eliminated from further analysis and why. Include the No Action alternative.*

The District considered alternative well sites and used specific scoring criteria to evaluate potential new well sites. These criteria included landowner willingness to sell to the District, any known or suspected uses of contaminated substances that would impact the well water quality, if the location was near the District to facilitate easy connection to the current water infrastructure, and if the wells would be viable if drilled on a given property. The proponent did not submit an alternatives analysis. Thus, for the purposes of this EA to adequately review this project for its potential environmental resource impacts, DNRC will review and compare the 'No Action' and 'Proposed' alternatives.

#### **1) No Action – Continue Using Current Drinking Water Supply Wells:**

- a. The District would continue to use their two current wells, located near their operating facilities. According to the District's contracted hydrogeologist Technical Memorandum, "Well No. 1, commonly referred to as the Shop Well, is the District's oldest water source. The well was drilled and completed August 30, 1967. The well was drilled to a depth of 85 feet and is cased with 16-inch steel casing from ground surface to 62 feet. The contractor installed 23 feet of Johnson stainless steel well screen from 62 to 85 feet bgs. According to the Well Driller's Report, groundwater is derived from a waterbearing sand and gravel formation that occurs from 60 to 85 feet bgs. The static water level at the time the well was constructed was three (3) feet bgs. The District pumps the well at 1,200 gallons per minute (gpm). As with many early wells, a grout seal was not installed when the well was constructed, which is now a standard requirement under both the Montana Board of Water Well Contractor Standards and the Department of Environmental Quality (DEQ) PWS regulations.
- b. Well No. 2, referred to as the Office Well, was drilled and completed September 18, 1975. The well is 143 feet and constructed with telescoping stainless steel well screen from 122 to 137 feet and has a 5-foot tail pipe with a steel plate welded on the bottom. All of the water is entering the well from the 15-foot screened interval. Although the well does not have a grout seal, the lithologic log indicates that a clay layer was encountered between 24 to 102 feet below ground surface (bgs). This clay layer has healed around the casing forming a 78-foot natural seal. The static water level is 2

feet bgs indicating the well derives groundwater from the underlying confined aquifer. Well No. 2 is less vulnerable to surficial contamination because it is significantly deeper and better sealed than Well No. 1.

- c. As previously described, Well No. 1 is highly vulnerable to both surficial and subsurface contaminant sources because of the outdated well construction methods. In addition, the well is near three known contaminant sources that include:
    - i. The KRY Superfund Site (Kalispell Pole and Timber, Reliance Refinery, and Yale Refinery);
    - ii. The Pacific Recycling scrap yard; and
    - iii. An unsewered area of Evergreen where septic drainfield failures are occurring.
- 2) Proposed Alternative – Install a New Well, Decommission Well #1, and Install a Monitor Well near Well #2
- This alternative would include the following:
- a. Purchase move-to property and drill a new well to replace Well #1.
  - b. Install two smaller pumps at the new location instead of using the older single pump to achieve redundancy and energy efficiency.
  - c. Decommission Well #1.
  - d. Install a monitor well in proximity to Well #2 and implement enhanced testing protocols for early detection of any potential contaminants.

### III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

#### 4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

*Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify direct, indirect, and cumulative effects to soils.*

Soils in the project area are within the Upper Flathead Valley and are predominantly Blanchard very fine sandy loam, 20 to 45 percent slopes, and poorly drained alluvial land (NRCS Survey Soil Map, date accessed: 8/8/2022<sup>1</sup>). In addition, NRCS classifies these soil types as 'very limited' (Blanchard very fine sandy loams, 52% of drawn project area) and 'somewhat limited' (alluvial land, 48% of drawn project area) in terms of subsurface water system installation.

The underlying geologic formation of the project area is Quaternary glacial/fluvioglacial and alluvium deposits, which are comprised of glacial till, outwash, and gravels with fine sands and silts interspersed with the alluvium<sup>2</sup>. There are no identified unique geologic features in the project area.

*Proposed Alternative* – Potentially minor adverse, short-term impacts to the soils during the drilling of the well and construction of the well house; however, there will be no significant change to site topography because of this project. In addition, footing and trench excavations will be limited to depths of ~7½ feet or less, and should not result in significant subsidence or slumping of nearby soils. DNRC does not anticipate long-term, cumulative impacts to the soils as the wells will be stabilized and should not result in additional erosion.

*No Action* – No wells would be drilled at the proposed site and therefore the soils and geology would not be impacted because of the proposed action.

#### 5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

*Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify direct, indirect, and cumulative effects to water resources.*

##### *Surface Water Quantity and Quality*

The project location is approximately 400 feet (+/- 50 feet) west from the Whitefish River<sup>3</sup> (HUC 17010210; Stillwater HUC; Pend Oreille Watershed; Columbia River Basin; Montana DEQ - Water Quality Standards Attainment Record, 2020). The Whitefish River flows in a southeast direction to its confluence with the Stillwater River. The Whitefish River has a mean annual flow ranging from 88.9 ft<sup>3</sup> s<sup>-1</sup> (in 2001) to 320 ft<sup>3</sup> s<sup>-1</sup> (1974; period of record for the USGS 12366000 Whitefish River

<sup>1</sup>NRCS Web Soil Survey – Custom Report ([Web Soil Survey \(usda.gov\)](https://websoilsurvey.sc.egov.usda.gov/)). Date Accessed: 8/8/2022.

<sup>2</sup>Harrison, J.E., Cressman, E.R., and Whipple, J.W., 1992, Geologic and structure maps of the Kalispell 1 degree x 2 degrees quadrangle, Montana, and Alberta and British Columbia [updated GIS data available], U.S. Geological Survey, Miscellaneous Investigations Series Map I-2267, 1:250,000.

<sup>3</sup>Montana DEQ - Water Quality Standards Attainment Record, 2020.

near Kalispell, MT gaging station<sup>4</sup>).

Montana Department of Environmental Quality (DEQ) classifies the Whitefish River as a use class B-2 stream, or a stream that fully supports aquatic life/fisheries, drinking water, and recreational benefits (Montana DEQ - Water Quality Standards Attainment Record, 2020)<sup>3</sup>.

All the District's water supplies are drilled wells and there are no surface water withdrawals.

#### *Groundwater*

The proposed well location would be drawing from the deep artesian aquifer of the Flathead Valley, which is a very high-quality water and is protected from contamination by a thick layer of lakebed sediments from Glacial Lake Missoula<sup>5</sup> (applicant information from DNRC Environmental Checklist). DNRC used the EPA sole-source aquifer map and determined there are no EPA-designated sole-source aquifers in the immediate area of the project area<sup>6</sup>.

#### *Floodplains*

There is mapped floodplain along the Whitefish River according to FEMA FIRM Panel 30029C1810 of the Flathead Valley<sup>5</sup>. The main channel of Whitefish River is mapped as floodway. The previously mentioned low ground on the west side of the site is an off-river channel designated as Zone AE<sup>7</sup> (floodway fringe) with a Base Flood Elevation (100-year flood elevation; BFE) of approximately 2,918.7 feet.

#### *Proposed Alternative –*

#### *Groundwater*

Potentially both beneficial and adverse impacts to the water quantity and distribution of the groundwater as the proposed well would be drawing additional water from the local artesian aquifer. This may create cumulative impacts as growth and additional well drilling in the area may put added pressure on this artesian well source. The two new wells that will replace the at risk well to be abandoned will be properly grouted and will be drilled to estimated depths of 400 feet below the ground surface. The addition of these two wells will enhance water quality by providing a reliable source of high-quality groundwater. Installing monitoring wells at the District Office site will give the District the ability to know if any of the known contaminants from the Superfund site have reached the District property, potentially threatening the water quality of their second deeper and presumably safer drinking water supply well at the site. Groundwater will continue to be the source of water supply for the District.

#### *Surface Waters*

Water from drilling operations will be directed to the low ground on and adjacent to the site along the west side of the property after sediment removal in temporary treatment ponds. This low ground slopes very gently downward to the south and eventually connects to the Whitefish River channel, which is approximately 1,000 feet away. Volume of water produced during drilling operations will not be sufficient to reach the Whitefish River but rather will infiltrate in the ground before reaching the river. Clear water discharged from the wells during test pumping will also be directed to this

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<sup>4</sup><https://waterdata.usgs.gov/monitoring-location/12366000/#parameterCode=00065&period=P7D>.

<sup>5</sup>Flathead County – Evergreen Well Source Replacement DNRC Environmental Checklist. 2022. Carver Engineering.

<sup>6</sup>EPA Sole Source Aquifer Map.

<https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>. Date Accessed: 8/8/2022.

<sup>7</sup>NEPA Assist mapping tool: <https://nepassisttool.epa.gov/nepassist/nepamap.aspx>.

same low ground and will likely be produced in large enough volumes (800 gpm for 72 hours) to reach the river. The channel bottom over which the water will flow is wide, flat, and grass covered. Velocities will be low, and erosion and sediment transport will not occur. Eventual entry of clear groundwater from test pumping into the Whitefish River will not adversely impact surface water. (Refer to the DNRC Environmental Checklist supplied by applicant).

#### *Floodplains*

The elevation of the project site on which improvements will be constructed is 2,923 feet or higher, therefore DNRC does not expect an impact in the 100-year flood zone. However, if a larger magnitude flood event were to occur (e.g., 200-year to 500-year flow event), then the proposed well site could be compromised by floodwaters.

*No Action* – The Evergreen WSD will continue to be at-risk of a contaminated well source if they continue to use their current well systems for the district. An existing ungrouted and relatively shallow well within the District's water supply system is at risk of contamination from polluted shallow groundwater that is moving toward this existing well from nearby Superfund sites.

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#### **6. AIR QUALITY:**

*What pollutants or particulate would be produced (i.e. particulate matter from road use or harvesting, slash pile burning, prescribed burning, etc)? Identify the Airshed and Impact Zone (if any) according to the Montana/Idaho Airshed Group. Identify direct, indirect, and cumulative effects to air quality.*

The project site is within the EPA-designated PM-10 Nonattainment area<sup>7</sup> and is presently a flat open field covered with grass and shrubs. There are no uses or facilities present that emit odors, dust, or emissions.

*Proposed Alternative* – Potentially adverse, short-term impacts because of construction during the project. Construction activities will involve stripping topsoil and building a parking area, driveway, and small well house structure. Drilling operations and other activities will use diesel powered equipment. Dust and exhaust emissions could have a temporary impact on air quality of the neighborhood during construction, but the effects will be minimal. Project proponent will take the necessary mitigation strategies to reduce excess air pollution during construction of this project.

*No Action* – No construction would occur; therefore no additional emissions/pollutants would impact air quality.

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#### **7. VEGETATION COVER, QUANTITY AND QUALITY:**

*What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify direct, indirect, and cumulative effects to vegetation.*

The proposed location is a mixture of open, developed space and Rocky Mountain Lower Montana, Foothill, and Valley Grassland<sup>8</sup>. There have been no field observations of any endangered or threatened plant species within the immediate project location.

*Proposed Alternative* – Potentially minor, short-term impacts to any vegetative communities

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<sup>8</sup>Montana Natural Heritage Program. Environmental Summary Report for Latitude 48.23550 to 48.25443 and Longitude -114.28788 to -114.31079. Retrieved on 8/10/2022.

associated with constructions activities; however, given there are no identified plant species of concern in the immediate area, there are likely no negative impacts to sensitive plant communities.

*No Action* – No well drilling would occur that would otherwise impact any native vegetative communities.

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## **8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:**

*Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify direct, indirect, and cumulative effects to fish and wildlife.*

The property has been used in the past as a homesite and is presently vacant. The site is located within the developed suburban community of Evergreen. As mentioned in the previous section, the proposed location is a mixture of open, developed space and Rocky Mountain Lower Montana, Foothill, and Valley<sup>8</sup>. There have been eight (8) animal species of concern listed as occurring near the project location (but not within the drawn area of interest), including aquatic species sampled in the Whitefish River such as Bull Trout (*Salvelinus confluentus*), Westslope Cutthroat Trout (*Oncorhynchus clarkii lewisi*), Alberta snowfly (*Isocapnia integra*), and Hooked snowfly (*Isocapnia crinita*). The terrestrial species recorded in the greater project area include Bald Eagle (*Haliaeetus leucocephalus*), Great Blue Heron (*Ardea herodias*), Grizzly Bear (*Ursus arctos horribilis*), and Long-Eared Myotis (*Myotis evotis*)<sup>9</sup>.

The immediate project site is not within any U.S. Fish and Wildlife Service designated critical habitats; however, the nearby Flathead River, is designated critical habitat for Bull Trout. DNRC used the Montana Sage Grouse Habitat Conservation Program online mapping tool and did not observe Sage Grouse habitat in the project area.

*Proposed Alternative* – Potentially limited adverse to no impact to terrestrial, avian, or aquatic life and habitats as the project area does not appear to contain any sensitive or critical habitats. The minimal adverse impacts would be due to the installation and construction of a small structure and a paved parking area and driveway. Thus, minimal vegetation will be lost with the conversion to hard surfacing.

*No Action* – No impact to terrestrial, avian, and aquatic life and habitats as there would be no construction or drilling of a drinking water well.

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## **9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:**

*Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify direct, indirect, and cumulative effects to these species and their habitat.*

The site is located within the developed suburban community of Evergreen. The parcel was previously used a homesite and is presently vacant. As mentioned in the previous section, The immediate project site is not within any U.S. Fish and Wildlife Service designated critical habitats; however, the nearby Flathead River, is designated critical habitat for Bull Trout. DNRC used the Montana Sage Grouse Habitat Conservation Program online mapping tool and did not observe Sage Grouse habitat in the project area.

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<sup>9</sup>U.S. Fish and Wildlife Service. IPaC – Information for Planning and Consulting - <https://ipac.ecosphere.fws.gov/>. Species Generated Report – date accessed: 8/10/2022.



In addition, according to both the NWIS online wetland mapping tool and the wetland and riparian results from the DNRC-generated MNHP Environmental Summary report, wetlands exist in some spots along the Whitefish River and in the channel bottom of the previously described low ground on the west side of the site.

*Proposed Alternative* – Potentially minimal adverse to no impact to any unique or endangered resources as all improvements of this project would be located on the high ground situated above the adjacent wetlands. Water from drilling operations and test pumping will be routed into and possibly through the wetlands. Drilling operation water will be treated in sedimentation ponds located on the high ground outside of the wetlands prior to discharge. Test pumping water will be clear high quality groundwater water.

*No Action* – No impact to unique, endangered, or fragile environmental resources as no well development would occur on the property.

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## **10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

*Identify and determine direct, indirect, and cumulative effects to historical, archaeological or paleontological resources.*

There are no known historic properties, cultural or archaeological resources on either of the two project sites. One site is presently vacant, and the other site has been used as the District's main storage yard & office site since 1967. The existing well to be abandoned is located within the District's original Shop building, which was constructed in 1967. Initial consultations with the MT SHPO indicate that the existing shop building is not a high value historic, cultural or archaeological resource (comments available upon request).

*Proposed Alternative* – There are no cultural or historical resource impacts anticipated. However, if previously unknown cultural or paleontological materials are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

*No Action* – No impact to historical or archaeological sites.

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## **11. AESTHETICS:**

*Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify direct, indirect, and cumulative effects to aesthetics.*

The property was formerly used a residential homesite and was occupied by a manufactured home that was not well maintained. The home is gone but some remnant debris is scattered about the site. Power was supplied by an overhead electrical cable, service pole and meter base. The current site is vacant and therefore does not add additional noise.

*Proposed Alternative* – Potentially both beneficial and adverse impacts. The benefits of implementing the project would be debris will be removed from the site. The existing overhead electrical service will also be removed and replaced with a new underground service. A small well house will be constructed, in which its appearance will be comparable to residential construction – prefinished colored siding, architectural shingled roof. The adverse impacts would occur during construction and

well drilling operations will produce fumes and noise, but these impacts will be temporary, minimal, and limited to normal day time work hours. In addition, the two nearest homes are located over 500 feet from the new wells and the increased noise will be temporary. Long term operations will not increase noise. The submersible pumps and motors of the wells will be inaudible at the ground surface when running. Backup emergency electrical power generator will be contained in a sound proofed enclosure. Impacts will be minimal. Overall, the facility will be well maintained, including frequent weed removal and overall maintenance of the building.

*No Action* – No additional impact to the current aesthetics of the site; however, the current infrastructure will remain intact and may be a long-term detriment to aesthetics of the area.

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## **12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:**

*Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify direct, indirect, and cumulative effects to environmental resources.*

The project involves abandoning an existing water supply well that contains a pump and motor that were installed in 1967 and replacing that well with two new wells with modern pumps and motors.

The well being abandoned is situated in the far southwest corner of the water distribution system and is located about two miles away from the water storage tanks of the distribution. Water discharged from the well is conveyed through transmission piping made up of 12-inch and 10-inch diameter pipes, with a total length of about two miles, before connecting to a larger 14-inch diameter transmission main for the remaining 1½-mile segment to the storage tanks. Total length between this existing supply well and the storage tanks is roughly 3½ miles as the pipelines run.

The West Reserve Drive Well site is located directly adjacent to the existing 14-inch diameter transmission main and about only 550 feet away from the water storage tank site as the pipeline runs.

*Proposed Alternative* – Potentially beneficial as the pump in the existing well being abandoned is a line shaft driven vertical turbine with a 75-horsepower motor. The pump and motor were installed in 1967. The motor was manufactured by US Motors. According to a US Motors representative, this 1967 vintage motor is about 77% efficient. Pumping rate of Well #1 is 1,200 gallons per minute.

The two new replacement wells will have submersible pumps & motors. Yield is anticipated to be 750 gallons per minute. The new motors will be 60 horsepower with a rated efficiency of over 86% at full load.

The new motors will use less energy than the existing motor of the well being abandoned to produce the same volume of water. The motors themselves are more efficient, and since they are close coupled to the pumps rather than connected with a long vertical line shaft, bearing losses are less. The smaller 60 horsepower motors require less current to start than the existing 75 HP motor, which results in lower demand charges from the local electric utility.

Due to the much closer proximity to the water storage tank site, and the considerably shorter length of transmission main through which water discharged from the new wells must flow to reach the storage tanks (about 550 feet versus 3½ miles of the well being abandoned), it will take considerably less energy to pump water from the new wells to the tanks than it takes to pump water from the well

being abandoned.

This Project will create the long-term benefit of energy efficiency with considerable energy savings to the District and its water users.

*No Action* – The current system will continue to use the old pumping system and create a long-term, inefficient demand of energy resources.

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### **13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:**

*List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

The project may overlap with the Montana Department of Transportation ‘West Reserve Drive Corridor Planning Study’ (comments submitted by Montana DOT, July 2022). Where the potential widening of West Reserve Drive from a two-lane with a center lane to a four-lane with center turn lane would require a right-of-way acquisition on one or both sides of the highway by DOT, inevitably conflicting with the 100’ well isolation zone. In addition, the applicant will need to complete a Driveway Approach Application and Permit from the local MDT Kalispell Office.

The project is also under review with the Montana DEQ Public Water Supply to determine compliance and compile a Source Water Delineation and Assessment report.

<b>IV. IMPACTS ON THE HUMAN POPULATION</b>
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| <ul style="list-style-type: none"> <li>• <i>RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.</i></li> <li>• <i>Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.</i></li> <li>• <i>Enter “NONE” If no impacts are identified or the resource is not present.</i></li> </ul> |
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### **14. HUMAN HEALTH AND SAFETY:**

*Identify any health and safety risks posed by the project.*

The existing water supply well in the original Shop building at the District Office site is directly down gradient of contaminated shallow groundwater in a Superfund Site. This well is at serious risk of contamination and is to be abandoned and replaced with two new wells at a different site (West Reserve Well Site).

#### *Hazardous Facilities*

Project site is an open vacant presently undeveloped field. There are no power lines or potentially explosive facilities present on the property. An overhead electrical transmission line runs east-west in the highway right-of-way directly north of the property boundary of the tract. A buried natural gas pipeline runs east-west in the highway right-of-way a few feet further north of the overhead power line

*Proposed Alternative* – Potentially beneficial as the intent of this project is to maintain the production capacity of the District’s water supply facilities at the present level and preserve the quality of the water delivered to users. By being proactive and possibly preventing introduction of contaminants

into the District's water distribution system, the District hopes to maintain the quality of the water it delivers to its users at its present high level. The contaminants found in the soil and/or shallow groundwater of the Superfund site that is nearby the District Office site, primarily pentachlorophenol, dioxins, furans, petroleum hydrocarbons, and lead, pose risks to human health because they are cancer causing agents or substances that can damage the liver, skin, reproductive, neurological and respiratory systems (see KRY Record of Decision by MT DEQ, December 2008 - [https://www.google.com/url?client=internal-element-cse&cx=013380590290877010950:k96xc8aze6c&q=https://deq.mt.gov/files/Land/StateSuperfund/Documents/KPT/RecordOfDecision/KryCompiledROD.pdf&sa=U&ved=2ahUKEwix2p\\_fjez3AhWLHzQIHajLBToQFnoECAUQAg&usg=AOvVaw2RTWZMUbtPnJ9fE7\\_0pH](https://www.google.com/url?client=internal-element-cse&cx=013380590290877010950:k96xc8aze6c&q=https://deq.mt.gov/files/Land/StateSuperfund/Documents/KPT/RecordOfDecision/KryCompiledROD.pdf&sa=U&ved=2ahUKEwix2p_fjez3AhWLHzQIHajLBToQFnoECAUQAg&usg=AOvVaw2RTWZMUbtPnJ9fE7_0pH).) By eliminating the use of the existing source well that is at highest risk of contamination by these known harmful substances, this Project will protect the health of its water users.

#### *Hazardous Facilities*

All work of this Project will be confined to the property owned by the Water District. Adequate separation from both existing power and gas lines and construction activities will be maintained during the Project construction. No hazardous or explosive facilities will be constructed as part of this Project

*No Action*—Potentially adverse impacts as a result of the no action alternative as the current well system is at risk of contamination due to an upstream Superfund site. Thus, human health and safety may be compromised in the future if the groundwater contamination plume were to reach the District's current wells.

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### **15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:**

*Identify how the project would add to or alter these activities.*

Former use of the property was residential with a single-family dwelling (manufactured home) installed on the parcel. This residence was removed many years ago and the property is now vacant. The Evergreen Water District operates a public water supply system and a public wastewater collection system. Project involves improvements that will maintain water supply capacity at existing levels for the residents within the District.

*Proposed Alternative & No Action* – Potentially no impact as the property is located within the community of Evergreen and is not prime farm or forest land. Use of the property as a source of public water supply will not impact agricultural lands. The project involves improvements to a public water supply system. No changes to commercial or industrial facilities are included in the project.

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### **16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:**

*Estimate the number of jobs the project would create, move or eliminate. Identify direct, indirect, and cumulative effects to the employment market.*

The Project involves drilling two new water supply wells and two new monitoring wells, abandonment of an existing well, plus construction of a new well house, some buried piping, and associated site improvements.

The new well site was formerly used as a single-family home site. There were and are no businesses located on the new well site. There are presently both residential and commercial uses on the adjacent parent property.

*Proposed Alternative* – Potentially short term, beneficial impacts as the project will provide a temporary boost to employment because workers are required to drill the new wells and construct the new facilities. Long term impacts will be minimal because the new facilities replace existing facilities and operational tasks will be the same, except for the new duties of semi-annual water quality sampling of the monitoring wells, which will be done by existing District staff. Conversion of the use of the site from residential to public utility water supply will result in the unavoidable loss of one residential tract. The project will not limit, restrict, or alter the ability of the adjacent property owners to continue using the property as they presently do.

*No Action* – No impact to quantity or distribution of employment.

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## **17. LOCAL AND STATE TAX BASE AND TAX REVENUES:**

*Estimate tax revenue the project would create or eliminate. Identify direct, indirect, and cumulative effects to taxes and revenue.*

The median household income for the service area is estimated at \$50488.00 USD<sup>10</sup>. The average monthly water and sewer rates are \$24.00 and \$63.00, respectively.

*Proposed Alternative* – Potentially beneficial as the project would award construction contracts for well drilling and these contracts will conform to applicable sections of Montana State Law, including the withholding of 1% of all payments by the District to the Contractors for the Montana Public Contractors Gross Receipts Tax. During construction, there will be an increase in state income and gross receipts tax payments by the workers & contractors of the project.

*No Action* – There will be no impacts to local or state tax bases and revenues given the water and sewer rates charges will remain the same; however, there will be no short-term benefits or increases to revenue as there will be no need for construction contracts.

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## **18. DEMAND FOR GOVERNMENT SERVICES:**

*Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify direct, indirect, and cumulative effects of this and other projects on government services*

### *Transportation Networks*

The proposed well site is accessed off West Reserve Drive, a secondary highway in the MT Department of Transportation's highway network. Traffic carrying capacity of West Reserve Drive is high. Traffic generated by the present use of the property is low to non-existent. Present (2019) traffic counts on West Reserve Drive are quite high (13,574 annual average daily traffic - AADT). Traffic counts are projected by MT DOT to increase at an annual rate of 2.4% during the next twenty years to a forecast AADT of 22,336 in 2040. Within the "mid-term" (5 to 10 years), MT DOT anticipates widening West Reserve Drive from its present width of 41 feet back-of-curb to back-of-curb for the present three lanes to 72 feet back-of-curb to back-of-curb for a new five (5) lane configuration. Widening in the area of the well site is recommended to be on the north side of the existing corridor because it has "significantly lower impacts as the land to the north of the corridor is primarily undeveloped."<sup>11</sup>. The well site is on the south side of the corridor and the widening

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<sup>10</sup>Montana Department of Commerce, Census and Economic Information Center, <https://ceic.mt.gov/>. Date Accessed: 8/10/2022.

<sup>11</sup>West Reserve Drive Corridor Planning Study by MDOT, September 2021.

project will not extend into the well site property. Presently MT DOT has not identified how the widening project would be funded. Implementation within the anticipated timeframe is not guaranteed.

#### *Fire Protection*

The proposed well site is presently a vacant, unattended grassy and shrub covered, open field. The fire danger posed by the present use and conditions is low. An existing Evergreen water system fire hydrant is located about 275 feet east of the proposed well site.

*Proposed Alternative* – Potentially minimal, short-term adverse impacts as the construction and operation, accidents, injuries, mishaps and vandalism at the site could require the attention of emergency medical service providers, fire or police, and local medical facilities and practitioners. The operation of the new facilities will not affect educational facilities, parks, playgrounds and open space. Contractors are required to follow work safety regulations. The sites will be fenced to prevent entry by the public. The project involves nothing unusually dangerous beyond normal heavy construction.

#### *Transportation Networks*

Traffic generated by the project, both during construction and during long term operations, will also be very low. West Reserve Drive has capacity to adequately serve traffic from the proposed well site. The project is not anticipated interfere with the future widening project by MT DOT since the widening will extend into the land on the opposite (north) side of the road; however, coordination with MT DOT should be an important component to the design and construction of the proposed well site. There will be no impacts to rail or air travel from the project.

#### *Fire Protection*

Construction activities will include welding, possibly cutting with acetylene torches, and other various activities with ignition sources, all of which might temporarily increase the possibility of starting a fire. This temporary increased risk is minimal. Contractors will be required to monitor their operations, implement normal fire prevention practices, and maintain appropriate fire extinguishing equipment on-site. Long term, the site improvements and operations will not increase risks of fire compared with present condition. The finished improvements – pavement, cement-plank siding and shingle or metal roofing – are less combustible than dry grass or shrubs. The periodic visits by District staff to tend to the water supply facilities will provide more opportunity to identify potential hazardous conditions and eliminate them. The existing fire hydrant located near the property can provide water at high flow rates if needed to fight a fire.

*No Action* – No impact to demand on government services as the current conditions are an open, vacant site with no future use part of this proposed project.

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## **19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:**

*List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

Both the District Office site and the proposed West Reserve Drive well site is located within the Evergreen Zoning District of Flathead County (comments available upon request). The District Office site is zoned R-2. The West Reserve Drive Well site is zoned SAG-10. Within both zoning classifications, a “Public Utility Service Installation” is a permitted use. The existing Shop building, which contains the existing well to be abandoned, and the proposed improvements at the West

Reserve Well site, are compatible with zoning land use regulations and adjacent land uses.

*Proposed Alternative & No Action* – Potentially no impact as there are no comprehensive plans or capital improvement plans that pertain to the property other than the District's own capital improvement planning, which includes this well replacement & monitoring project. The project involves improvements that will maintain water supply capacity at existing levels. No changes affecting growth, development activity and adjacent land use will result from the project.

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**20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:**

*Identify any wilderness or recreational areas nearby or access routes through this tract.*

*Determine the effects of the project on recreational potential within the tract. Identify direct, indirect, and cumulative effects to recreational and wilderness activities.*

*No Impact* - The project site was formerly owned by a private party and no public uses occurred on the property. There is no access to the Whitefish River on or across the property. The site was previously used as a residential homesite.

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**21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:**

*Estimate population changes and additional housing the project would require. Identify direct, indirect, and cumulative effects to population and housing.*

*No Impact* – The project well site occurs entirely on the District's property and therefore any impact to housing is not expected as no housing units would be built for this project. The population characteristics also likely will have no change as the primary purpose of this project is to ensure reliable, safe drinking water for the current users of the District.

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**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

*No Impact* – The project is intended solely for the protection of the District's current public water supply system and additional social structures will likely not be impacted by the implementation of this project.

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**23. CULTURAL UNIQUENESS AND DIVERSITY:**

*How would the action affect any unique quality of the area?*

*No Impact* – The proposed well site is presently a vacant unattended grassy and shrub covered open field. The District Office site has been used by the District since its inception 1967 as its operational headquarters. There is not expected changes to the cultural uniqueness and diversity as a result of the implementation of this project.

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**24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:**

*Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify direct, indirect, and cumulative economic and social effects likely to occur as a result of the proposed action.*

The existing water supply well in the original Shop building at the District Office site is directly down gradient of contaminated shallow groundwater in a Superfund Site. This well is at serious risk of contamination and is to be abandoned and replaced with two new wells at a different site (West Reserve Well Site). Capacity of the existing Shop well is 1,200 gpm.

*Proposed Alternative* – Potentially short-term beneficial impacts as the proposed construction activities would provide a temporary boost to employment; however, there will be no change in employment levels in the long term.

*No Action* – No impact to other social or economic circumstances.

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## **25. DRINKING WATER AND/OR CLEAN WATER**

*Identify potential impacts to water and/or sewer infrastructure (e.g., community water supply, stormwater, sewage system, solid waste management) and identify direct, indirect, and cumulative effects likely to occur as a result of the proposed action.*

*Community Water Supply* – An existing non-grouted and relatively shallow well within the District's water supply system is at risk of contamination from polluted shallow groundwater that is moving toward this existing well from nearby Superfund sites. This existing well will be abandoned and replaced with the new wells of this proposed project. The existing well is to be filled with concrete or cement grout sealing material to prevent movement of water within the bore hole. Abandoning this existing well will eliminate a well that is a potential danger to the deep artesian aquifer of the Flathead Valley.

### *Stormwater*

The proposed well site is presently a vacant, grass and shrub covered open field. Very little surface water runoff is generated from these vegetated surfaces. Precipitation and snow melt mostly infiltrate into the ground directly where it falls or is produced. Any high intensity storms or major melting events that do generate runoff would drain to the former river overflow channel that is located along the west boundary of the property. There is no surface water runoff flowing onto, across, or through the site from upgradient properties.

### *Wastewater Treatment System*

The proposed well site is presently vacant. The former residence was served by an on-site wastewater treatment and disposal system, the details of which are unknown. No septic permit for the system has been found in the records of the Environmental Health Department of Flathead County. It is suspected that this existing on-site wastewater system probably does not meet current Flathead County Septic System regulations.

### *Solid Waste Management*

No current solid waste management plans at the open, vacant site.

### *Proposed Alternative –*

#### *Community Water Supply*

Potentially beneficial as the two new wells that will replace the at-risk well will be properly grouted and drilled to estimated depths of 400 feet below the ground surface. These new wells will draw water from the deep artesian aquifer of the Flathead Valley, which is a very high-quality water and is protected from contamination by a thick layer of lakebed sediments from Glacial Lake Missoula. The addition of these two wells will enhance water quality by providing a reliable source of high-quality



groundwater. Installing monitoring wells at the District Office site will give the District the ability to know if any of the known contaminants from the Superfund site have reached the District property, potentially threatening the water quality of their second deeper and presumably safer drinking water supply well at the site.

#### *Stormwater*

Improvements at the proposed well site include construction of a small well house structure, paved parking & driveway. The roof of the well house and paved areas will be considerably less permeable than the vegetated surfaces they replace. Surface water runoff will be greater than pre-improvement volumes. As part of the site design, the site will be graded to route runoff to detention ponds where the storm water will be collected, treated and disposed of by infiltration into the ground. An emergency overflow outlet to the low channel to the west would be provided to handle runoff magnitudes that exceed the 100-year design event.

#### *Wastewater Treatment System*

The existing on-site wastewater treatment and disposal system, if found, will be abandoned. No sewage plumbing fixtures are proposed in the new proposed well house. This project will not create any wastewater discharge. Use of the existing and possibly sub-standard on-site wastewater disposal system will be eliminated. The project will have a beneficial impact by eliminating all discharges of sewage into the soil at the proposed project site.

#### *Solid Waste Management*

There are no existing structures on-site that require demolition and disposal. The small number of debris scattered about the site will be removed and disposed of during site preparations. The small amount of solid waste that will be produced during construction activities will be disposed of at the Flathead County Sanitary Landfill. Long term operations will generate little if any solid waste.

*No Action* – The current drinking water supply is at risk of groundwater contamination from upstream Superfund areas, and this continue to pose a public health and safety risk to the residents depending on this current system.

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## **25. ENVIRONMENTAL JUSTICE**

*Will the proposed project result in disproportionately high or adverse human health or environmental effects on minority or low-income populations per the Environmental Justice Executive Order 12898? Identify potential impacts to and identify direct, indirect, and cumulative effects likely to occur as a result of the proposed action.*

DNRC used the U.S. EPA NEPAAssist tool<sup>7</sup> – EJScreen Indexes (2021) to determine what proportion of mainly low-income and/or minority residents would contribute significantly to the national disparity if they were additionally impacted by certain environmental factors in the nearby project area. The following tables summarizes DNRC results of this search:

<b>Environmental Indicators</b>	<b>Percentile of low-income and/or minority residents at risk due to current Environmental Indicators (%)</b>
<i>Particulate Matter 2.5</i>	<i>&lt;50</i>
<i>Ozone</i>	<i>50-60</i>
<i>2017 Diesel Particulate Matter</i>	<i>&lt;50</i>
<i>2017 Air Toxics Cancer Risk</i>	<i>&lt;50</i>
<i>2017 Air Toxics Respiratory HI</i>	<i>&lt;50</i>
<i>Traffic Proximity</i>	<i>&lt;50</i>
<i>Lead Paint</i>	<i>60-70*</i>
<i>Superfund Proximity</i>	<i>&lt;50</i>
<i>RMP Facility Proximity</i>	<i>50-60</i>
<i>Hazardous Waste Proximity</i>	<i>&lt;50</i>
<i>Underground Storage Tanks</i>	<i>&lt;50</i>
<i>Wastewater Discharge Indicator</i>	<i>50-60</i>

(Source: EPA NEPAAssist tool; Environmental Justice Indexes in EJScreen - <https://www.epa.gov/ejscreen/environmental-justice-indexes-ejscreen#excess>).

*\*This is the greatest percentile of those at-risk low-income and/or minority groups that would add to the national disparity of those at risk due to lead paint health risks. From EPA, "Minority and low-income individuals live in older housing more often than the rest of the US population, for example. The EJ Index for lead paint (pre-1960 housing) tells us how much each block group contributes toward this "excess population risk" or "excess number" of people in older housing, for potentially susceptible individuals. "Excess" here simply means the number of potentially susceptible individuals in older housing is above what it would be if they were in older housing at the same rate as the rest of the U.S. population."*

*Proposed Alternative & No Action – Potentially no impact as the proposed project will not result in disproportionately high or adverse human health or environmental effects on minority or low-income populations. The economic impact will ultimately affect all users of the system proportionately. No disproportionate effects among any portion of the community are expected.*

<b>EA Prepared By:</b>	<b>Name:</b> Demi Blythe <b>Title:</b> MEPA/NEPA Coordinator <b>Email:</b> Demitra.Blythe@mt.gov	<b>Date:</b> 8/17/2022
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## V. FINDING

### 26. ALTERNATIVE SELECTED:

- 3) Proposed Alternative – Install a New Well, Decommission Well #1, and Install a Monitor Well near Well #2

This alternative would include the following:

- a. Purchase move-to property and drill a new well to replace Well #1.
- b. Install two smaller pumps at the new location instead of using the older single pump to achieve redundancy and energy efficiency.
- c. Decommission Well #1.
- d. Install a monitor well in proximity to Well #2 and implement enhanced testing protocols for early detection of any potential contaminants.

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## **27. SIGNIFICANCE OF POTENTIAL IMPACTS:**

Impacts on water quality are expected to be minor and short-term during well drilling and can be controlled through proper construction practices.

Short-term negative impacts on air quality may occur from heavy equipment, including dust and exhaust fumes during project construction. Construction practices and dust abatement measures will be implemented during construction to control dust, thus minimizing this problem.

Short-term impacts from increased noise levels may occur during construction activities. The construction period will be limited to normal daylight hours to avoid early morning or late evening construction related disturbances. In the long-term, no increase in noise levels associated with this project will occur.

Energy consumption during construction cannot be avoided. No permanent direct, indirect, or cumulative adverse impacts are anticipated because of the proposed project.

For the Montana Department of Transportation (DOT) concerns brought forth with the agency comment letters, MDT staff responded with additional analysis suggesting the right-of-way will only encroach approximately 10 feet into the 100-foot well isolation zone. It was also suggested DEQ may grant a deviation request if sufficient information is provided as to the hydrogeology of the aquifer and potential contaminants introduced with the potential encroachment (comments available upon request).

The applicant supplied comments from the U.S. Army Corps of Engineers. These comments suggested not enough information was known to determine if a Section 404 and/or Section 10 permit is required for the project. Thus, if the project expects to have any fill enter the navigable waters, it is in the best interest of the applicant to seek the necessary Federal, State, or local permits (e.g., 310 permit from the local conservation district office; comment available upon request).

28. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

☐

EIS

☐

More Detailed EA

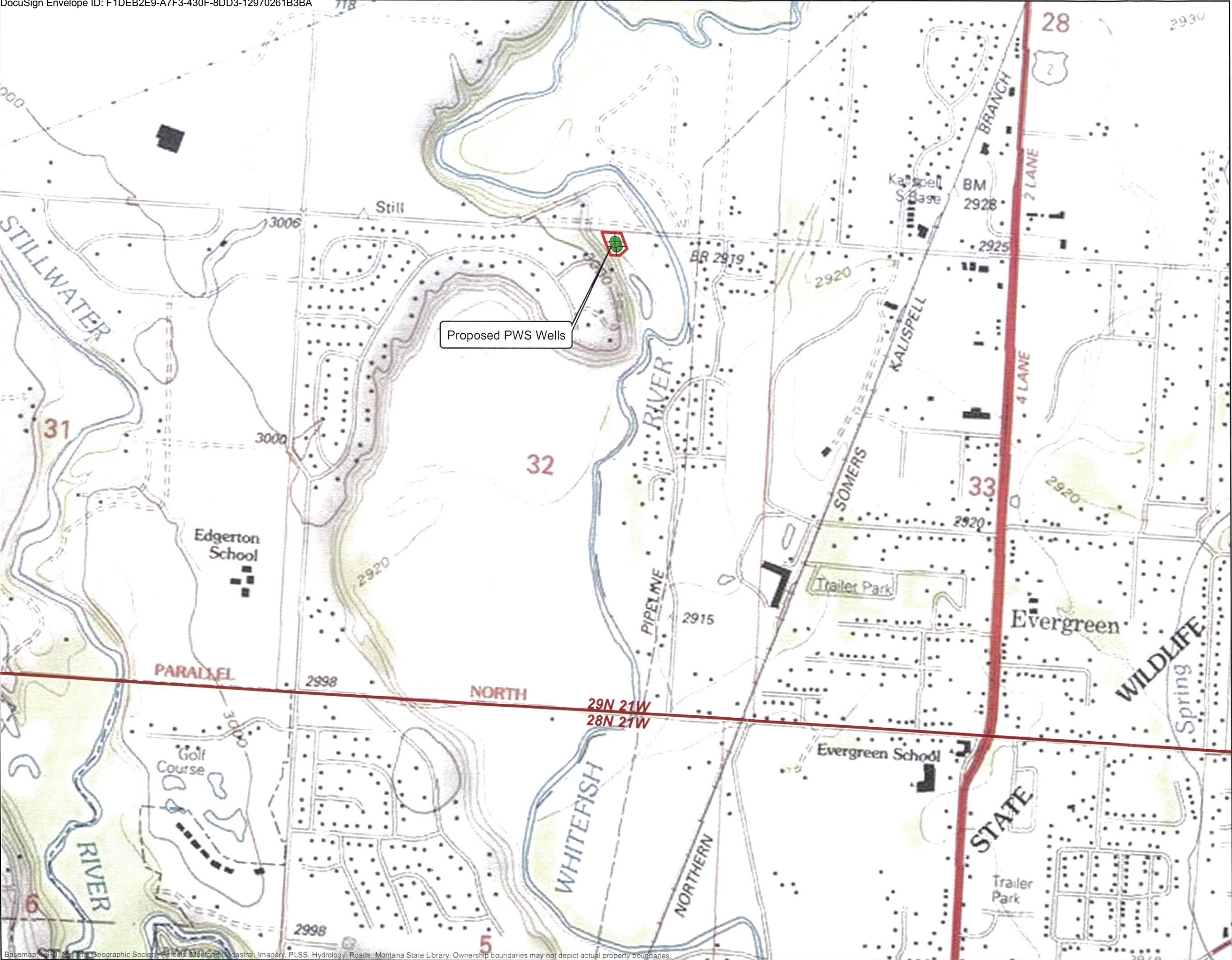
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No Further Analysis

EA Approved By:	Name:	Mark Bostrom
	Title:	CARD Division Administrator
Signature:	Date: 10/14/2022   11:40:44 AM MDT	

Additional environmental review documents that support this Environmental Assessment are available to the general public by request at the Department of Natural Resources and Conservation (DNRC), Conservation and Resource Development Division (CARDD) at 1539 11th Ave, Helena, MT. Phone (406) 444-6619.

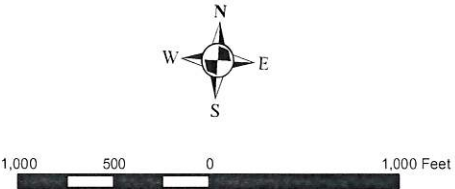




**Legend**

- Proposed PWS Wells
- Property Boundary
- PLSS Township

Note: All feature locations are approximate - figure is provided for schematic purposes only



Evergreen PWS Well Design & Permitting

Site Vicinity

Kalispell, MT

Job#: 1441-21

Date: 12/2/2021

FIGURE 1

Path M:\1441-21\Evergreen PWS Well Design & Permitting\GISMAOs\Fig 1 - Evergreen PWS Site Vicinity.dwg Author: rcoffey